

USIB-D-9.1/20
30 April 1973

UNITED STATES INTELLIGENCE BOARD

MEMORANDUM FOR THE UNITED STATES INTELLIGENCE BOARD

SUBJECT : Policy Statement - USIB Physical Security
Standards for Compartmented Information
Facilities

REFERENCE : USIB-D-9.1/19, 20 March 1973

The attached USIB Policy Statement was approved by the
United States Intelligence Board on 30 April 1973, and is circulated
for information and appropriate implementation.



25X1

Executive Secretary

Attachment

USIB POLICY STATEMENT
ESTABLISHING
PHYSICAL SECURITY STANDARDS FOR SENSITIVE
COMPARTMENTED INFORMATION* FACILITIES

(Effective 30 April 1973)

Minimum standards are hereby established governing the construction and protection of facilities for storing and processing sensitive compartmented information and material which requires extraordinary security safeguards as prescribed in pertinent national directives. Compliance with these standards is mandatory for all facilities established after the effective date, above, including any major renovation of existing facilities insofar as the renovation will permit reasonable and practical upgrading. It is not intended that existing, previously approved facilities shall be modified to conform with these standards.

It is recognized that there may be instances in which circumstances constitute a threat of such proportion that it can

*The term "sensitive compartmented information" as used in this Directive is intended to include all information and materials bearing special community controls indicating restricted handling within present and future community intelligence collection programs and their end products for which community systems of compartmentation have been or will be formally established. The term does not include restricted data as defined in Section II, Public Law 83-703, Atomic Energy Act of 1954, as amended.

only be offset by the most stringent security arrangements. Conversely, there may arise those instances in which time, location, condition of use of the material, or other unforeseen factors may render full compliance with these standards unreasonable or impossible. Situations such as the foregoing are to be referred to the cognizant approving authority as far in advance as possible in order that full and timely consideration may be given to a request for deviation from the standards.

The procedures for establishment and accreditation of sensitive compartmented information facilities shall be as prescribed in the applicable national directives.

PHYSICAL SECURITY STANDARDS FOR SENSITIVE
COMPARTMENTED INFORMATION FACILITIES

CONTENTS

	Page
Section I Definitions	4
Section II Perimeter Construction Criteria for Sensitive Compartmented Information Facilities	7
Part I Facilities Located in the United States	7
Part II U. S. -Controlled Facilities Located Outside the United States	13
Part III Air Vents and Ducts	17
Section III Security Alarm Systems.....	19
Section IV Telephone and Intercommunications Equipment Security.....	22
Section V Miscellaneous Physical Security Requirements.	25
Section VI Field or Combat Operations.....	27
Annex A Vault Specifications.....	30
Annex B Secure Area Specifications	33
Annex C Sound Attenuation Classifications	35
Annex D Specifications for Barring Windows.....	38
Annex E Specifications for Locally Fabricated Doors...	43

SECTION I - DEFINITIONS

1. Alarm Door Switch - A balanced magnetic switch so designed and installed that opening the door will cause an alarm to be generated.
2. Closed Storage - The storage of sensitive compartmented information material in properly secured GSA approved security containers within an accredited facility while such facility is not occupied by authorized personnel.
3. Continuous Operations - This condition exists when a facility is manned 24 hours every day by not fewer than two appropriately cleared personnel who have the continuous capability of detecting unauthorized entry into the facility.
4. Field or Combat Operations - Military operations which are conducted under combat or simulated combat conditions and which must provide for a mobile or semi-permanent environment.
5. Forced Entry - Unauthorized entry into a facility or security container in a manner in which evidence of such entry is easily discernable in normal occupancy or usage.
6. Guard - A properly trained and equipped individual whose duties include the protection of a sensitive compartmented

information facility. Guards whose duties require direct access to a facility, or patrol within a facility, must meet the clearance criteria in Director of Central Intelligence Directive No. 1/14 but need not necessarily be indoctrinated for access to sensitive compartmented information.

7. Open Storage - The storage of sensitive compartmented information material on shelves, in metal containers locked or unlocked, but not in GSA approved security containers, within an accredited facility while such facility is not occupied by authorized personnel.

8. Perimeter Alarm System - A warning system which detects penetrations, or attempted penetrations, of the walls, doors, windows, vents and/or other perimeter openings and, if required, the floors and ceilings of a facility.

9. Secure Working Area - An accredited facility which is used daily for handling, discussing and/or processing of sensitive compartmented information, but where such information is not stored.

10. Sensitive Compartmented Information Facility - An area, room, group of rooms, or installation which has been accredited

by authority of applicable national directives for storage, discussion and/or processing of sensitive compartmented information. Wherever the word "facility" appears herein, it shall be construed to mean sensitive compartmented information facility.

11. Surreptitious Entry - The unauthorized entry into a facility or security container in a manner in which evidence of such entry is not discernable in normal occupancy or usage.
12. Volumetric Alarm System - A system which detects movement throughout the interior of an alarmed area, as opposed to the detection of perimeter penetrations.

SECTION II

PERIMETER CONSTRUCTION CRITERIA FOR SENSITIVE COMPARTMENTED INFORMATION FACILITIES

PART I - FACILITIES LOCATED IN THE UNITED STATES

13. Situation 1. Ground level facilities or facilities having openings (windows, doors, vents, etc.) readily accessible from the ground.

a. Open Storage:

(1) Open storage of sensitive compartmented information shall be avoided. If necessary, however, it must be in a facility constructed to vault specifications (see Annex A) and its openings protected with approved alarms. Guard response to an alarm shall be three minutes or less.

(2) Vault construction requirements may be waived when the facility is located in a building that has continuous personnel access control, 24 hour guard protection with guard personnel capable of responding to an alarm within three minutes or less; and adequate reserve guard personnel readily available to assist the responding guard in an emergency. Windowless facilities meeting these criteria may utilize construction of typical dry wall material or better, installed slab to slab. However, if any part

of the perimeter wall, floor, or ceiling of the facility is also a part of the building perimeter, such a wall, floor, or ceiling must be constructed to the secure area specifications in Annex B. The facility, including its openings, shall be protected with an approved perimeter or volumetric alarm system. The alarm system must cover the entire area of the facility to include an area above a false ceiling. The door(s) to the facility must be of metal or solid wood and equipped with a permanently installed GSA approved Group 1 combination lock with an escape mechanism, such as the Safemasters Model 50 Lock Extension, and an approved alarm door switch.

b. Closed Storage: All material shall be secured in GSA approved security containers having resistance to surreptitious entry equal to or exceeding that afforded by a Class 3 or Class 6 container. Windows and doors readily accessible from the ground shall be protected against forced entry. The windows may be equipped with bars, steel shutters, or alarms. If steel bars are used, they shall be installed as shown in Annex D. If steel shutters are used, they shall be installed on the inside of the window opening and shall be at least 1/8" thick and equipped with an appropriate locking device. If the facility's location is

in an area particularly subject to burglarious attack or mob violence, bars or shutters should be used on the windows instead of or in addition to alarms, depending on the degree of vulnerability existing in the area. Doors to the facility should be kept to a minimum, ideally one. Flat sill fire doors with built-in locking mechanisms, solid wooden doors (1-3/4" minimum thickness), or metal clad fire doors should be used. Doors must be equipped with a permanently mounted GSA approved Group 1 combination lock and have an inside escape mechanism such as the Safemasters Model 50 Lock Extension. An approved alarm door switch must be used on all doors in addition to the lock. If secondary doors are required, they should be of the type mentioned above or of sheet steel (without frontal hardware) and secured from the inside with bars and brackets or lockable sliding deadbolts (see Annex E for example). Guard patrols within or around the facility should be on a random basis, but not less than two times each hour. If there is no guard patrol available, then the room and/or containers and the doors and windows are to be equipped with approved alarms, with the guard response being five minutes or less.

c. Continuous Operation: The facility must be in operation 24 hours every day and all sensitive compartmented information

material stored in containers which can be secured with a combination lock in an emergency. No alarm or special construction is required, other than to meet sound attenuation requirements. However, if any part of the perimeter wall, floor, or ceiling of the facility is also a part of the building perimeter, all windows and doors in such part shall be protected against forced entry as described in Paragraph 13.b., above. The wall, floor, or ceiling in that part shall be constructed of material that provides equivalent forced entry protection. Adequate guard personnel shall be available to respond to the facility in the event of an emergency.

d. Secure Working Areas (no storage of compartmented intelligence): Perimeter walls, floors, and ceilings may be constructed without regard to the thickness or type of material so long as they are of such strength that they will show evidence of any attempt at forced entry and provide the necessary sound attenuation. However, where there exists a possibility that undetected penetration (i. e., surreptitious entry) can occur, then appropriate measures must be taken (e. g., alarms, barriers, etc.) to detect and/or prevent it.

14. Situation 2. Facilities above, or completely below, ground level with no ready access to exterior openings.

a. Open Storage:

(1) Open storage of classified material shall be avoided.

If open storage is necessary, however, it must be in a facility constructed to secure area specifications (see Annex B) and its opening(s) protected with approved alarm(s). Guard response to an alarm shall be three minutes or less.

(2) Secure area construction requirements may be waived when the facility is located in a building that has continuous personnel access control, 24 hour guard protection with guard personnel able to respond to an alarm within three minutes or less; and adequate reserve guard personnel readily available to assist the responding guard in an emergency. Facilities meeting these criteria may utilize construction of typical dry wall material or better, slab to slab, provided each facility, including its openings, is protected with an approved perimeter or volumetric alarm system. The alarm system must cover the entire area of the facility, including any area above a false ceiling. The door(s) to the facility must be of the metal clad type, or solid wood, and equipped with a permanently installed

GSA approved Group 1 combination lock escape mechanism, such as the Safemasters Model 50 Lock Extension, and be equipped with an approved alarm door switch. The windows must be secured and inoperable.

b. Closed Storage: If all classified material is secured in GSA approved security containers, having resistance to surreptitious entry equal to or exceeding that afforded by Class 3 or Class 6 containers, no additional construction is required, other than to meet sound attenuation requirements. Guard patrols within or around the facility should be on a random basis, but not less than two times each hour. If there is no guard patrol available, then the room and/or containers and the doors and windows are to be equipped with approved alarms with the guard response being five minutes or less.

c. Continuous Operation: The facility must be in operation 24 hours every day, and all sensitive compartmented information will be stored in containers that can be secured with a combination lock in an emergency. No alarm or special construction is required, other than to meet sound attenuation requirements.

d. Secure Working Areas (no storage of sensitive compartmented information): Perimeter walls, floors, and ceilings

may be constructed without regard to the thickness or type of material so long as they are of such strength that they will show evidence of any attempt at forced entry and also provide the necessary sound attenuation. However, where there exists a possibility that undetected penetration (i. e., surreptitious entry) can occur, then appropriate measures must be taken (e. g., alarms, barriers, etc.) to detect and/or prevent it.

PART II - U. S. -CONTROLLED FACILITIES LOCATED OUTSIDE
THE UNITED STATES

15. Situation 1. Ground level facilities or facilities having openings (windows, doors, vents, etc.) readily accessible from the ground.

a. Open Storage: Open storage of classified material will be permitted only when the material is of a size or configuration that precludes its being stored in the largest GSA approved container available. Open storage must be in a facility constructed to vault specifications (see Annex A) and equipped with approved perimeter and/or volumetric alarm(s). Guard response to an alarm shall be three minutes or less.

b. Closed Storage: If all material is stored in GSA approved security containers having a rating for both forced and surreptitious

entry equal to or exceeding that afforded by the Class 5 container, then the requirements in Paragraph 13. b., which pertain to openings (windows, doors, vents, etc.), locks, alarms, and guard patrols, apply.

If material is stored in approved containers having less than the Class 5 rating cited above, then the facility shall be constructed to secure area specifications (see Annex B) and the area protected with an approved perimeter and/or volumetric alarm. Guard response to an alarm shall be five minutes or less.

c. Continuous Operation: The facility must be in operation 24 hours every day, and all material will be either located in GSA approved security containers that can be secured in event of emergency or there must be an adequate, tested emergency plan providing for protection, evacuation, or destruction of such material in an emergency. No alarm or special construction is required other than to meet sound attenuation requirements. However, if any part of the perimeter wall, floor, or ceiling of the facility is also a part of the building perimeter, all windows and doors in such part shall be protected against forced entry as described in Paragraph 13. b., above, and the walls, floor, or ceiling in that part shall be constructed of material that provides

equivalent forced entry protection. Adequate guard personnel shall be available to respond to the facility in the event of an emergency.

d. Secure Working Areas (no storage of compartmented intelligence material): Perimeter walls, floors, and ceilings may be constructed without regard to the thickness or type of material so long as they are of such strength that they will show evidence of any attempt at forced entry and provide the necessary sound attenuation. However, where there exists a possibility that undetected penetration (i. e., surreptitious entry) can occur, then appropriate measures must be taken (e. g., alarms, barriers, etc.) to detect and/or prevent it.

16. Situation 2. Facilities above ground level or completely below ground level with no ready access to exterior openings.

a. Open Storage: Open storage of classified material will be permitted only when the material is of a size or configuration that precludes its being stored in the largest GSA approved security container available. Open storage must be in a facility constructed to secure area specifications (see Annex B) and equipped with an approved perimeter and/or volumetric alarm. Guard response to an alarm shall be three minutes or less.

b. Closed Storage:

(1) If all material is stored in GSA approved security containers having a rating for both forced and surreptitious entry equal to or exceeding the Class 5 container and guard patrols within or around the facility are on a random basis, at least two times each hour or more frequently, no other construction is required, except to meet sound attenuation requirements.

(2) If material is stored in GSA approved security containers having forced and surreptitious entry ratings less than the Class 5 container, then the facility shall be equipped with an approved volumetric alarm with a guard response of five minutes or less.

NOTE: If facilities within the purview of 16.b.(1) and (2) are particularly vulnerable to burglarious attack and/or mob violence, secure area construction (Annex B) must be used.

c. Continuous Operation: The facility must be in operation 24 hours every day. All material will be either located in GSA approved security containers that can be secured in an emergency, or there must be an adequate, tested plan providing for protection, evacuation, or destruction of such material in an emergency. No

alarm or special construction is required, other than to meet sound attenuation requirements.

d. Secure Working Areas (no storage of compartmented intelligence material): Perimeter walls, floors, and ceilings may be constructed without regard to the thickness or type of material so long as they are of such strength that they will show evidence of any attempt at forced entry and provide the necessary sound attenuation. However, where there exists a possibility that undetected penetration (i. e., surreptitious entry) can occur, then appropriate measures must be taken (e. g., alarms, barriers, etc.) to detect and/or prevent it.

PART III - AIR VENTS AND DUCTS

17. Vents and ducts and/or any similar openings that breach the facility's perimeter will be protected and equipped as prescribed below:

a. All openings with one dimension of 6" or less will need, if applicable, only appropriate baffles keyed to the sound attenuation factors prescribed in Paragraph 27.

b. All other openings will be protected at the perimeter with the following, installed in the order listed, progressing inward from the outer face of the perimeter:

- (1) Hardened steel bars, 1/2" in diameter, meeting a 600 or 650 Brinell rating, mounted 6" on center vertically and horizontally and welded at all intersections.
- (2) An appropriate alarm device.
- (3) If applicable, appropriate baffles keyed to the sound attenuation factors prescribed in Paragraph 27.

SECTION III - SECURITY ALARM SYSTEMS

18. It is recognized that the requirement for a security alarm system is dependent on a number of variables. The physical location of the facility, number and type of guards, hours of operation, type of construction, and the degree of the threat must all be considered when deciding if, and/or what type of, an alarm system is to be used. However, if an alarm system is used, it must meet the minimum requirements established herein.

19. Any security alarm system or alarm component which is to be used to protect sensitive compartmented information must have been tested against, and passed, the Interim Federal Specification, Alarm Systems, Interior, Security, Components for, W-A-00450A (GSA-FSS) dated 29 December 1969, as subsequently amended. The Atomic Energy Commission (AEC) is the General Services Administration's officially designated test facility for security alarm systems. Their certification that a system or a component has been tested against the Interim Federal Specification and has passed all tests shall constitute an authorization to use that system or component to protect sensitive compartmented information.

20. The use of Types 1, 2, or 3 alarm transmission line supervision, as defined in the Interim Federal Specification, shall be in accordance with the following conditions:

- a. When the alarm transmission lines do not leave the perimeter of the facility, electronic line supervision is not required.
- b. When the alarm transmission lines do not leave the perimeter of the building housing the facility, transmission lines may be routed in tubing (EMT, joints epoxy sealed) and equipped with a Type 3 electronic line supervision system; or the transmission lines may be protected by a Type 1 or 2 electronic line supervision system not routed in tubing, in lieu of a Type 3 line supervision system routed in tubing.
- c. Transmission lines routed in an environment not covered above must be protected with a Type 1 or 2 electronic line supervision system, or, may be routed in steel conduit and protected by a Type 3 line supervision system.

21. It is recognized that with a rapidly changing state-of-the-art, alarm specifications must be updated periodically. Revisions or amendments to the Interim Federal Specification, Alarm Systems, shall automatically be incorporated into the minimum requirements

herein and shall be effective from the published date of the revision or amendment.

SECTION IV

TELEPHONE AND INTERCOMMUNICATIONS EQUIPMENT SECURITY

PART I - TELEPHONE SECURITY

22. To achieve the required degree of telephone security for a sensitive compartmented information facility, controls must be placed on all telephone lines, active or inactive, and telephone instruments must be kept to a minimum and correctly safeguarded to prevent their being employed as clandestine listening devices.

23. All incoming telephone cables and wires which penetrate a facility's perimeter must enter the facility through one opening and be placed under control at the interior face of the perimeter by the following:

a. All active incoming telephone lines must be accounted for by the number of pairs in use, by telephone or extension number, and the number of excess/unused pairs in existence. This accounting must be updated whenever the status of a pair of wires is changed.

b. All excess/unused incoming wires must be either disconnected, removed, stripped and grounded, or bound together in a manner which prevents their unauthorized use.

24. The United States Intelligence Board has authorized the publication and dissemination of telephone security guidance developed by its Technical Surveillance Countermeasures Committee (TSCC). The installation of telephone equipment in sensitive compartmented information facilities shall be in accordance with TSCC telephone security guidance publications.

PART II - INTERCOMMUNICATIONS EQUIPMENT

25. The installation of intercommunications systems in these facilities is discouraged; but, if they are needed for operational purposes, they will be installed in accordance with the guidance herein.

26. If a dial-type intercommunications system capability is engineered into the approved telephone system, no further action is required under this paragraph, providing that the system is in accordance with Part I, Section IV, above. If a separate internal intercommunications system or a direct wire telephone intercom is installed, the following must be complied with:

- a. No station or wiring will be located outside of the facility, and all wiring will be installed in a manner that permits visual observation of the complete wire runs.

- b. All connecting cable, if not shielded, will be routed in Electrical Metallic Tubing (EMT).
- c. The intercom system will be tested by qualified counterintelligence technicians for at least the following:
 - (1) Audio and Radio Frequency radiation.
 - (2) Unauthorized monitoring of one or more stations by other stations in the network. If this is detected, the weakness must be eliminated.
 - (3) Induction of intercom audio signals into telephone and power lines. If detected, lines must be rerouted to eliminate this hazard or the system removed.
 - (4) Tampering.
 - (5) Physical by-passing of disconnecting device.
- d. If audio or Radio Frequency radiations are detected from the intercom system beyond the facility's perimeter, the system must be removed, unless measures can be applied to limit the radiations to within the facility perimeter.

SECTION V

MISCELLANEOUS PHYSICAL SECURITY REQUIREMENTS

27. Audio Security: In establishing physical security protection for a sensitive compartmented information facility, sound attenuation aspects, as well as the possibility of technical penetration, must be considered. Countermeasures can be effected by installation of proper equipment, suitable construction, and enhanced by the maintenance of sound discipline where required. When conversations of a classified nature occur within a facility, sound deadening material must be installed so as to conform with the Building Area Sound Group Classifications in Annex C. These classifications apply to all perimeter walls, floors, ceilings, doors, windows, vents, ducts, and any other openings exposed to areas not under U. S. Government control or areas which otherwise present a hazard. A technical counter audio inspection shall be conducted at each new facility either before it is placed in operation or as soon afterward as is possible. Thereafter, these inspections shall be conducted at such intervals as may be necessary to maintain adequate technical security.

28. Optical Security: If a facility is accredited for handling, but not for discussion of sensitive compartmented information or

materials, all windows which might reasonably afford optical surveillance of personnel, documents, materials, or activities within the facility must be made opaque or equipped with blinds, drapes, or other suitable covering which will preclude such optical surveillance.

29. Access Controls: Rooms, office suites, or other areas accredited as sensitive compartmented information facilities must be afforded access controls to preclude freedom of entry by unauthorized personnel during the conduct of business.

SECTION VI

FIELD OR COMBAT OPERATIONS

30. Security Standards for field or combat operations can only prescribe the minimum requirements, since each situation differs. Situation and time permitting, however, the minimum standards below will be improved upon, using the security considerations and requirements for permanent secure facilities as an ultimate goal.

31. Under field or combat conditions, a continuous 24 hours operation is mandatory. Every effort must be made to obtain all necessary support from the headquarters served (e.g., security containers, vehicles, generators, barbed wire, automatic weapons, etc.).

32. Recognizing that field/combat operations, as opposed to operations within a fixed military installation, are of the type which may be considered as least secure, it is, therefore, required that the following minimum physical security requirements be met:

- a. The facility shall be physically located well within the supported headquarters defensive perimeter; preferably as close to the Command Operations Center as compliance with these requirements will allow.

- b. The facility will be fenced with a triple strand concertina fence erected a minimum of 10 yards from the facility.
- c. Access into the area will be restricted to a single gate/entrance capable of being secured.
- d. The gate/entrance will be manned by a guard during the hours of darkness.
- e. The gate/entrance will be secured at all times except when required to be opened for movement of personnel and equipment.
- f. Where resources permit, a minimum of two indoctrinated personnel will be within the facility at all times.
- g. A current access list will be maintained and access to the facility will be restricted to those persons whose names appear on the list.
- h. Emergency destruction and evacuation plans will be kept current.
- i. When not in use, material will be stored in GSA approved containers.
- j. Communications, both wire and radio if possible, will be established and maintained with the reserve guard forces.

33. The following requirements will be met if consistent with tactical conditions, availability of time, resources, manpower, and the desires of the supported commander:

- a. If available, permanent type facilities will be used.
- b. When temporary facilities are used, they will be sandbagged.
- c. The gate/entrance will be guarded on a continuous basis.
- d. The facility perimeter fence will be guarded, during the hours of darkness, by walking or fixed guards to provide observation of the entire perimeter fence. Guards will be armed with weapons and ammunition prescribed by the supported commander.

Annex A

VAULT SPECIFICATIONS

1. These are minimum specifications. Use of materials having thicknesses or diameters larger than those specified is optional. The term "anchor and/or imbedded to the floor and ceiling" applies to the affixing of supporting members and reinforcing to the true slab or the most solid existing surface. Sub-floors and false ceilings are not to be used for this purpose.
2. Reinforced concrete construction (for new construction and for construction at ground level or below): Walls, floor, and ceiling shall be a minimum thickness of 8" of reinforced concrete. The concrete mixture shall have a minimum compressive strength of at least 3,000 PSI. Reinforcing shall be accomplished with reinforcing bars a minimum of 5/8" in diameter positioned centrally in the concrete pour and spaced horizontally and vertically 6" on center. The bars shall be tied together in the contiguous walls and firmly anchored to and/or in the floor and ceiling.
3. Steel Lined Construction (for use in existing structure and/or above ground level): Construction shall be of steel plate a minimum of 1/4" thick. The steel plates are to be continuously

Annex A

welded to supporting steel members of a minimum thickness equal to that of the plate. If the supporting steel members are being placed in a contiguous floor and ceiling of reinforced concrete, they must be either firmly anchored to and/or imbedded in the floor and ceiling. If the floor and/or ceiling construction is less than 6" reinforced concrete, then a steel liner shall be constructed the same as the walls to form a floor and ceiling of the vault.

4. Openings as they Apply to Both Methods of Vault Construction:

a. The vault shall be equipped with an approved vault door of the type presently listed on the Federal Supply Schedule. The Class 5 vault door shall be used with reinforced concrete vaults. Where weight or construction is a factor and a steel lined vault is used, the lighter Class 6 vault door is recommended. Normally, a vault should have only one entrance. When a vault exceeds 1,000 square feet of floor space or has more than 8 occupants, it should have a minimum of two exits (one of which will be the entrance) for safety purposes. When more than one entrance is required, each must be equipped with the approved door, but only one door shall be used for normal access. Doors without frontal hardware will be used as secondary doors. The use of a vault

Annex A

door for controlling daytime access to a facility is not authorized as this continued use will create undue wear on the door and will eventually weaken the locking mechanism and cause malfunctioning. Therefore, a vestibule should be constructed at the entrance with an access door which meets the sound attenuation requirements in Annex C. Where building codes require that the vault entrance meet a specified fire rating, the vestibule access door must be of the required fire rating. There shall be no windows in a vault.

Annex B

SECURE AREA SPECIFICATIONS

1. Secure area walls shall be reinforced on the inside with steel plate not less than 1/8" thick. The plates at every vertical joint are to be affixed to vertical steel members of a thickness not less than that of the plate. The vertical members shall be firmly anchored to the floor and ceiling. The plates shall be spot welded to the vertical members by applying a 1" long weld every 12"; meeting of the plates in the horizontal plane shall be continuously welded. If the existing walls are of reinforced concrete over 4" thick, or are of solid masonry (stone or brick) over 8" thick, no reinforcing is required. Walls of hollow masonry (blocks and tiles) are not considered adequate and must be reinforced.
2. The floor and ceiling of the room selected for a secure area shall be of at least 4" of reinforced concrete. Floors and ceilings not meeting this criterion must be reinforced with steel plate 1/8" thick. Floor and ceiling reinforcement must be securely affixed to the walls with steel angles welded or bolted in place.
3. A secure area shall be equipped with a Class 6 vault door.

Normally, a secure area should have only one entrance. When

Annex B

a secure area exceeds 1,000 square feet of floor space or has more than 8 occupants, it should have a minimum of two exits (one of which will be the entrance) for safety purposes. When more than one entrance/exit is required, each must be equipped with the approved door, but only one door shall be used for normal access. Doors without frontal hardware will be used as secondary doors. The use of a vault door for controlling daytime access to a facility is not authorized, as this continued use will create undue wear on the door and will eventually weaken the locking mechanism and cause malfunctioning. Therefore, a vestibule should be constructed at the entrance with an access door which meets the sound attenuation requirements in Annex C. Where building codes require that the entrance meet a specified fire rating, the vestibule access door must be of the required rating.

4. Windows, if necessary in a secure area, shall be secured with bars or steel shutters in addition to the measures taken to prevent visual or audio surveillance of the activities within the facility.

Annex C

SOUND ATTENUATION CLASSIFICATIONS

1. This Annex provides information to be used as acoustic isolation criteria (voice range only) for construction of sensitive compartmented information facilities. The spectrum of technical surveillance devices for voice transmittal and compromising emanations is treated in other directives and, therefore, is not addressed herein.
2. The term "Sound Transmission Class" (STC) is used in architectural acoustics to describe the transmission attenuation afforded by various wall materials and other building components. The following transmission attenuation groups have been set up to satisfy the normal security requirements of facilities used for sensitive compartmented information activities which border areas not under U.S. Government control or areas which otherwise present a hazard.
 - a. Sound Group 1 - 30 or better STC
 - Loud speech can be understood fairly well.
 - Normal speech cannot be easily understood.

Annex C

b. Sound Group 2 - 40 or better STC

Loud speech can be heard, but is hardly intelligible.

Normal speech can be heard only faintly if at all.

c. Sound Group 3 - 45 or better STC

Loud speech can be faintly heard but not understood.

Normal speech is unaudible.

d. Sound Group 4 - 50 or better STC

Very loud sounds, such as loud singing, brass musical instruments or a radio at full volume, can be heard only faintly or not at all.

3. The above sound group designations are used in the listing which follows to simplify the application of acoustic requirements of secure facilities for various functions.

<u>Building Areas and Functions</u>	<u>Sound Group</u>
Office Space	
Executive Suite.....	3

Annex C

<u>Building Areas and Functions</u>	<u>Sound Group</u>
Private Offices.....	2
Open Workspace.....	3
"Lab".....	2
Conference Rooms	
Briefing or Conference Rooms.....	3
Training - Plans Room	3
Conference Rooms with movable partition (Including movable partition)	3
Auditoriums	
Auditorium with sound reinforcement (No speakers on common wall)	4
Auditorium without sound reinforcement.....	3
Projection Rooms.....	3

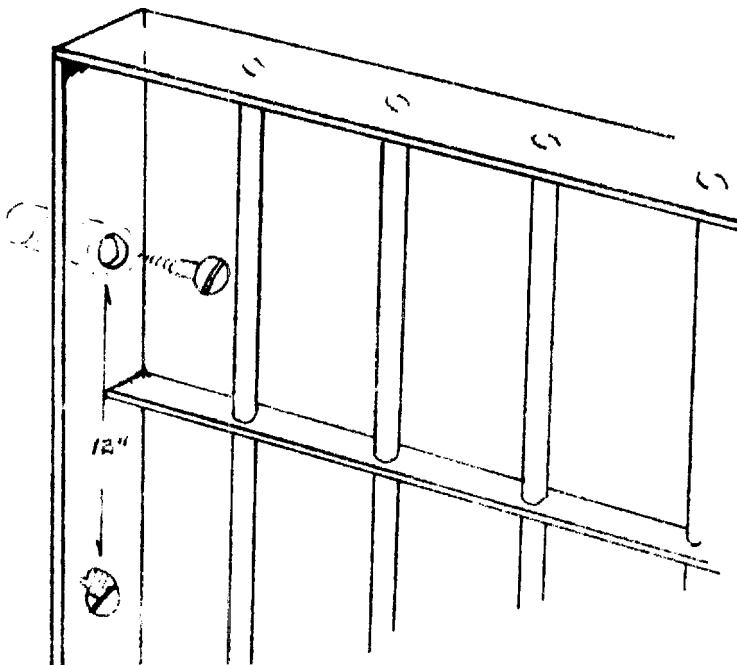
4. Testing Procedures

- a. Test procedures to be followed for measuring the attenuation levels of a completed structure are those prescribed in ASTM E-336-67T entitled, Tentative Recommended Practices for Measurement of Airborne Sound Insulation in Buildings.
- b. The National Bureau of Standards is preparing a simplified procedure for a field check of sound attenuation levels. Upon release of these procedures, they will replace those cited in a. above.

Annex D

SPECIFICATIONS FOR BARRING WINDOWS

TYPE A



1. Steel frame: Minimum of $3/8"$ thick by $3"$ wide.
2. Steel bars: Minimum of $1/2"$ in diameter and placed not more than $6"$ apart vertically.
3. Horizontal steel supports: Minimum of $1/4"$ thick by $1-1/2"$ wide and placed not more than $18"$ apart. The horizontal supports are to be drilled so that the vertical bars can be passed through them and be spot welded in place prior to installation.
4. All joinings of frame, bars and supports, at top, bottom or sides, must be by welding.

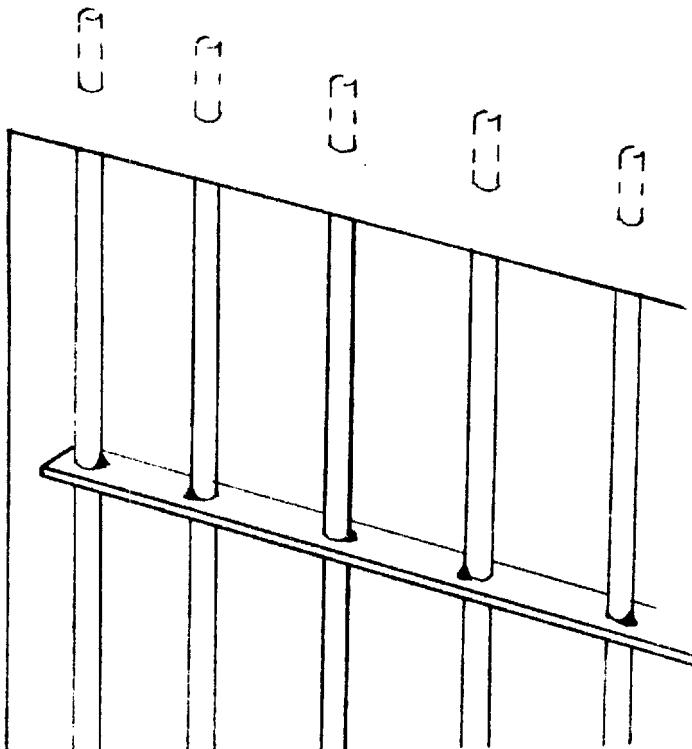
Annex D

5. Frame must be held in masonry opening by using expanding masonry anchors and steel screws that are not less than 3/8" in diameter by 3" long, with screw heads welded to frame.
6. Screws and expanding anchors are to be located in the center of the frame width and placed every 12" around the entire frame; top, sides, and bottom.

Annex D

SPECIFICATIONS FOR BARRING WINDOWS

TYPE B



1. Steel bars: Minimum of 1/2" diameter and placed not more than 5" apart, vertically.
2. Horizontal steel supports: Minimum of 1/4" thick by 1-1/2" wide and placed not more than 18" apart. The horizontal supports are to be drilled so that the vertical bars can be passed through them and be spot welded in place prior to installation.
3. The ends of each vertical bar will be imbedded in the masonry a minimum depth of 3".

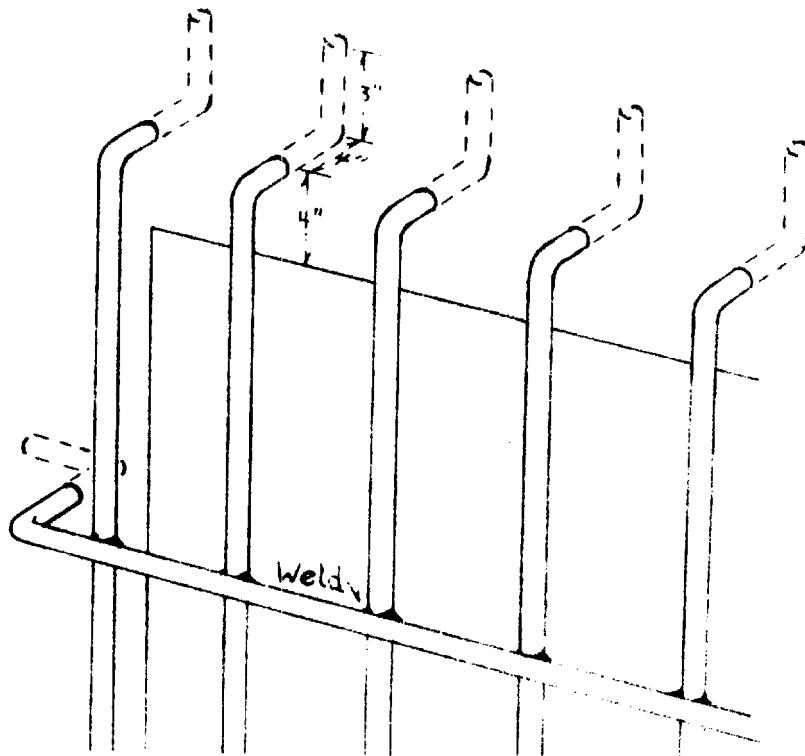
Annex D

4. The entire bar work will be located back in the masonry opening at least 4".

Annex D

SPECIFICATIONS FOR BARRING WINDOWS

TYPE C



One-half inch diameter steel bars are used to form a grill work that is to be imbedded into the masonry wall around the window opening. Vertically the bars must be no more than 6" apart; horizontally, no more than 18" apart. Horizontally, bars must be welded to each vertical bar. The point where bar ends, both vertical and horizontal, enter the masonry must be a minimum of 4" from the edge of the opening. The angled bar ends should extend into the masonry a minimum of 4", with the bent end being a minimum of 3".

Annex E

MINIMUM SPECIFICATIONS FOR LOCALLY
FABRICATED STEEL SECONDARY OR EMERGENCY
EXIT DOORS FOR VAULTS AND SECURE AREAS

1. The door will be a single steel panel not exceeding 4' in width or 8' in height. The minimum panel thickness should be 1/4" for secure areas and 1/2" for vault areas.
2. The door frame is to be constructed of steel at least 1/8" thick for secure areas and 1/4" thick for vault areas. The door stop must be continuously welded to the frame. It may be a solid block of metal (Detail B) or a "U" channel (Detail A); however, the stop must extend out from the frame sufficiently to allow at least a one inch contact with the door panel at sides and top. The frame should extend over the wall, sides and top, a minimum of 4".
3. Normally doors of this type must open outward for safety reasons and, therefore, the hinges are on the outside. Heavy duty steel hinges will be used, at least three per door panel. These hinges should be welded to the panel and frame, and the hinge pins welded to the butts.
4. Four steel bar holding brackets, at least 4" wide and 1/4" thick, will be welded to the inside of the door in the approximate

Annex E

location shown on the attached drawing. The top two brackets are to be positioned approximately 1/3 of the distance down from the top of the door panel and the bottom two approximately 1/3 of the distance up from the floor.

5. Two steel bars are to be made (Detail C) for placement in the brackets. The bars can be constructed of two steel angles or "U" channels welded together and, when completed, should be approximately 3" to 4" square. The length of the bars will be such that, when in place, they provide a close fit in the door jamb, overlapping the door stop/mullion by 1" or more.

6. The bars and brackets are to be drilled at a downward angle to accommodate 1/4" steel pins. The pins are to be sufficiently long to bottom out on the inside of the bars and are to be secured with chains welded or otherwise attached to the door jamb; attachment is to keep the pins from being lost. The fit of the pins must permit ready removal by hand.

7. Spacer blocks are to be provided with each of the bar and bracket units. These blocks serve to cause a proper, snug fit of the bars when in place. The blocks may be of either steel or wood. If steel, they may be welded to the bars; if wood, they may be drilled and attached with bolts.

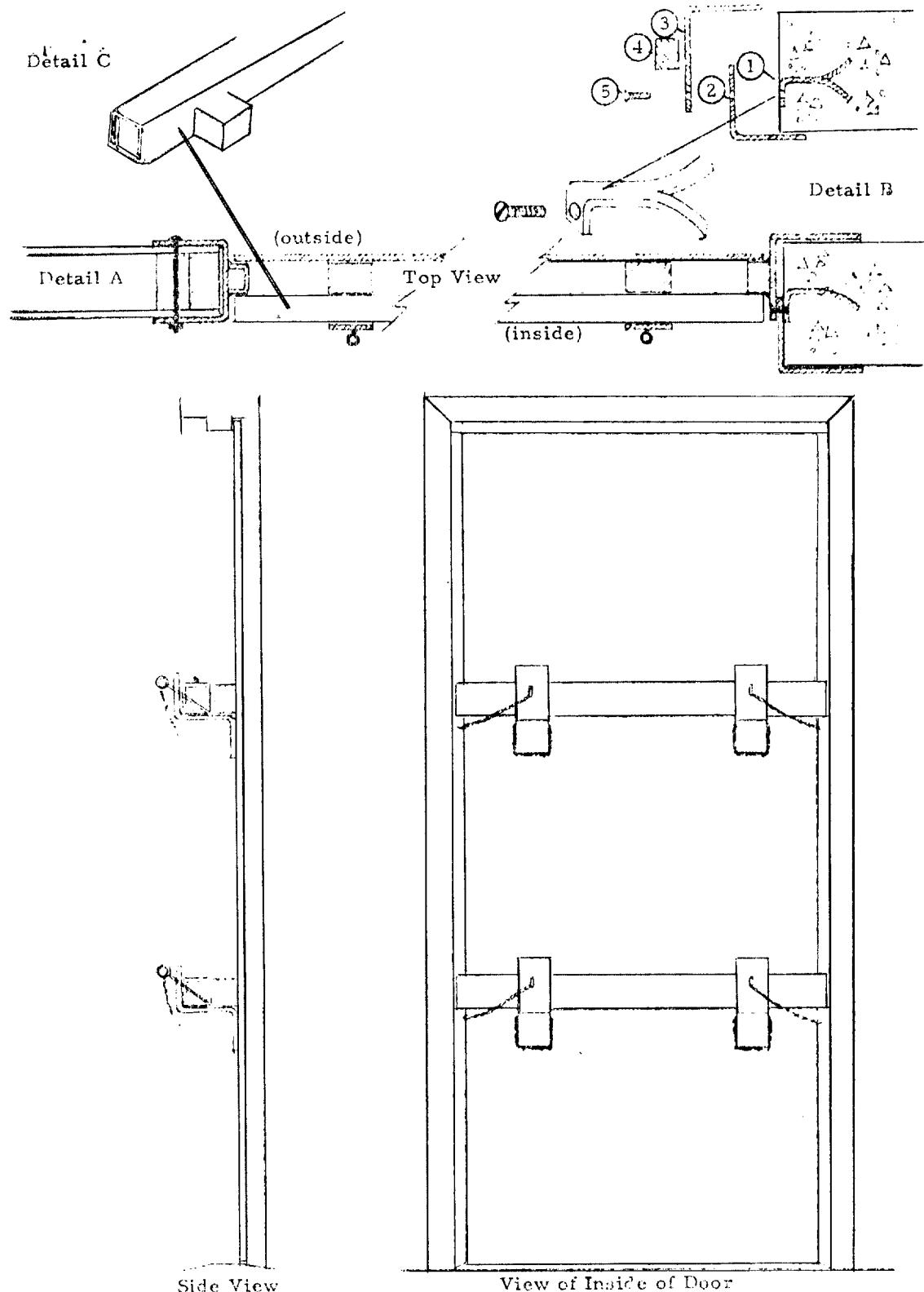
Annex E

8. Detail A depicts a means of securing a door frame to a light secure area type wall, such as wood studs and dry wall reinforced with steel or expanded metal. A "U" channel or two angles are adjusted and welded together to form the frame around the wall opening. It is then bolted in place by the use of carriage bolts having their rivet-like heads on the outside and the nut on the inside. The bolts at the nut end will be peened over or spot welded to preclude tampering. The bolts should be at least 3/8" in diameter and installed so that their heads fit tight and flush against the outside of the frame. Bolts will be installed in both sides and top of the frame and spaced approximately 18" apart.

9. Detail B depicts a suggested method for installing a frame in a masonry wall. Pieces of steel 1-1/2" to 2" wide by 1/4" thick are formed as shown and grouted into the masonry of the door opening every 12" to 18" at both sides and top. The hole in the end, kept flush with the opening, will be drilled and tapped to receive the screw selected. This screw should be of steel, 3/8" or more in diameter, and will be long enough to extend through all three pieces of metal. Two angles, as shown in the detail, are then put in place and screwed together. The door stop, be it

Annex E

a solid block or "U" channel, is then continuously welded in place on both sides and top of the frame. This method of installing a steel door frame is extremely effective from the standpoint of strength. If the steel piece is not used, a 3/8" diameter steel lag bolt, shaped in an L, may be grouted into the masonry with its threaded end out. The two angles are then installed with holes to permit the threaded end to protrude through them and a nut is used to bolt the frame in place. This method is as effective, but is more unsightly and personnel passing through the door are apt to catch clothing on the protruding bolt ends.



FOR OFFICIAL USE ONLY